



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: JT9D-7R4E, -7R4E1 BYPASS RATIO: 5.0
 UNIQUE ID NUMBER: 1PW027 PRESSURE RATIO (π_{co}): 24.2
 COMBUSTOR:
 ENGINE TYPE: TF RATED THRUST (F_{oo}) (kN): 222.4

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F _{oo} (g/kN) or SN	2.3	15.7	70.3	5.4
AS % OF ORIGINAL LIMIT	11.9	13.3	79.6	28.5
AS % OF CAEP/2 LIMIT (NO _x)			99.5	
AS % OF CAEP/4 LIMIT (NO _x)			121.9	
AS % OF CAEP/6 LIMIT (NO _x)			138.5	
AS % OF CAEP/8 LIMIT (NO _x)			167.6	

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
 x DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 x OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F _{oo})	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	2.118	0.16	0.57	41.60	5.0
CLIMB OUT	85	2.2	1.724	0.13	0.53	34.20	
APPROACH	30	4.0	0.653	0.13	1.23	10.40	
IDLE	7	26.0	0.221	1.11	8.27	4.10	
LTO TOTAL FUEL (kg) or EMISSIONS (g)			818	447	3215	14527	-
NUMBER OF ENGINES				6	6	5	4
NUMBER OF TESTS				7	7	6	5
AVERAGE D _p /F _{oo} (g/kN) or AVERAGE SN (MAX)				2.1	14.9	67.3	5.0
SIGMA (D _p /F _{oo} in g/kN, or SN)							
RANGE (D _p /F _{oo} in g/kN, or SN)							

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	
TEMPERATURE (K)	276-304
ABS HUMIDITY (kg/kg)	

FUEL

SPEC	Jet A
H/C	
AROM (%)	

MANUFACTURER: Pratt & Whitney
 TEST ORGANIZATION: P&WA
 TEST LOCATION: East Hartford, CT
 TEST DATES: 06/03/1980-03/11/1981

REMARKS

Compliance with Fuel Venting requirements: - ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)